

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. Daniel C. Edelstein YOR920030262US1 8703 10/662,022 09/12/2003 (16785) EXAMINER 23389 7590 08/24/2005 SCULLY SCOTT MURPHY & PRESSER, PC GHYKA, ALEXANDER G **400 GARDEN CITY PLAZA** PAPER NUMBER ART UNIT SUITE 300 GARDEN CITY, NY 11530 2812

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		1 4 11 11		<u>n'x</u>
		Application No.	Applicant(s)	
Office Action Summary		10/662,022	EDELSTEIN ET AL.	
		Examiner	Art Unit	
		Alexander G. Ghyka	2812	
Period for	The MAILING DATE of this communication ap	opears on the cover sheet with the	correspondence address	
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).				
Status				
2a)⊠	, —	is action is non-final.	prosecution as to the merit	te ie
	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.			
Dispositio	on of Claims			
5)□ (6)⊠ (7)□ (Claim(s) <u>1-9</u> is/are pending in the application a) Of the above claim(s) is/are withdra Claim(s) is/are allowed. Claim(s) <u>1-9</u> is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/	awn from consideration.	ALEXANDER GHYP PRIMARY EXAMINE AV 2812	ĒR
Application Papers				LAA
9) ☐ The specification is objected to by the Examiner. 10) ☑ The drawing(s) filed on 12 September 2003 is/are: a) ☑ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.				
Priority u	nder 35 U.S.C. § 119			
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 				
Attachment(•	3		
2) Notice 3) Inform	of References Cited (PTO-892) of Draftsperson's Patent Drawing Review (PTO-948) ation Disclosure Statement(s) (PTO-1449 or PTO/SB/08 No(s)/Mail Date	4) Interview Summa Paper No(s)/Mail 5) Notice of Informal 6) Other:		

Art Unit: 2812

DETAILED ACTION

Applicants' response of 6/15/2005 has been considered and entered in the record. Applicants' arguments are not persuasive for the reasons as discussed below.

Claim Rejections - 35 USC § 102

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by M'Saad (US 6,713,390) for the reasons as discussed in the previous Office action.

Response to Applicants' Arguments

The applicants argues that M'Saad do not disclose a method for improving the interfacial strength including adhesion and cohesion between ttwo different layers which includes: positioning a substrate having an upper first layer of dielectric or conductive material in a reactor chamber that is capable of generating a plasma; exposing said upper first layer to a surface preparation plasma for a first period of time; introducing precursors of a second layer to be deposited on the upper first layer for a second period of time, while the surface preparation plasma is active in the reactor; and stopping the surface pretreatment plasma at the end of the second period of time and adjusting plasma parameters for deposition of said second layer.

In response to applicant's arguments, the recitation "for improving the interfacial strength including adhesion and cohesion between two different layers" has not been given patentable weight because the recitation occurs in the preamble. A preamble is

Application/Control Number: 10/662,022

Art Unit: 2812

generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

With respect to the exposure step and the step which introduces the precursors, the Examiner also notes that there is nothing in the claim language to preclude the first period of time and the second period of time from being the same, or having the exposure step and the step introducing the precursors from occurring simultaneously. Claims are read in the broadest reasonable way in light of the Specification. In that case, as M'Saad discloses the use of argon as an inert gas (column 12, lines 35-40), the use of the argon plasma could be considered the exposure step, which is simultaneous to the introduction of the precursors, and meets the requirement of the claimed exposure step and the step of introducing the precursors. With respect to the last claimed step, these limitations are met by stopping the argon plasma and either continuing the process without the inert gas or stopping the deposition process, either one of which would read on the phrase "adjusting". The Examiner maintains that read broadly in light of the Specification, the M'Saad reference anticipates every element of the present claims. Therefore, the rejection of record is maintained in view of the above reasons.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander G. Ghyka whose telephone number is (571) 272-1669. The examiner can normally be reached on Monday through Thursday during general business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Lebentritt can be reached on (571) 272-1873. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Application/Control Number: 10/662,022 Page 5

Art Unit: 2812

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AGG August 18, 2005

> ALEXANDER GHYKA PRIMARY EXAMINER

Au 2812